ACE-II Viewer Quick Guide

The ACE-II viewer displays the ACE-II data layers and model results, and allows the user to overlay information about stressors, ownership, and other landscape variables. This guide provides a quick introduction to the functionality of the viewer.

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BASICS

Navigating on the map
Click and drag to move the map in the desired direction.

Zoom
Use your mouse scroll wheel to zoom in and out.

Base Layers
Various base layers for topography, terrain, streets, and imagery can be viewed along with the ACE-II data. To change the base layer, click the “Switch Basemap” box in the upper right hand corner of the map window, and select the desired base layer. To close the box, click on the words “Switch Basemap” within the title bar.

Reports and FAQ
Click on the “More Info” box in the upper right hand corner of the map window for a list of reports and other documentation. Clicking on a document name will open the pdf file in a new window.

DATA LAYERS

Turning on data layers

A list of all layers can be found by clicking the "Content" box on the left hand size of the map to expand it. Under "Layers", choose a view: "Statewide" or "Ecoregional". (For more information on Statewide vs. Ecoregional data, see below.)

Turn on any data layer by clicking the radio button to the left of the layer name. If no box is visible next to the name, click on the horizontal arrow to expand the list of viewable layers within that category.

Note that only one ACE-II data layer can be displayed at a time. Each time a new ACE-II layer is selected, the new layer will turn on and the previously displayed ACE-II layer will turn off. However, the "Other Layers", including other base data, essential habitat connectivity data, limited data areas, and stressors, are meant to be viewed as overlays with the ACE-II data layers. More than one of these other layers can be turned on at a time, and once turned on they will remain on until they are manually turned off. If you are having difficulty viewing two layers together, try adjust the opacity of one or more layers.

Statewide and Ecoregional Data

The viewer allows the display of both statewide data layers and results of the ACE-II ecoregional analysis.

Statewide data

Statewide data include overview maps of species richness, rarity, and sensitive habitats. In addition, a statewide biological richness overview, which represents the sum of species richness, rarity, and sensitive habitats normalized statewide, can be viewed. These coarse-scale maps can be used to view the distribution of richness and rarity statewide within California, but their use for local planning is limited. See the ACE-II Project Report for more information.

Ecoregional data

The ecoregional model results represent areas of highest biological richness within each ecoregion of the state. Because the analysis was done separately for each ecoregion, model results are not directly comparable between ecoregions. Therefore, the ecoregional model data can only be viewed one ecoregion at a time. To view the ecoregional model layers, you must first select your ecoregion of interest. The ecoregional model data will display for the ecoregion that is selected.

Selecting an ecoregion

Choose the ecoregion of interest from the drop-down list at the top of the ecoregional layers list. This will select and zoom to the ecoregion of interest.

Layer descriptions/Metadata
To find more information about each data layer, including the data sources used to create the layer, a description of the process used to develop the layer, field name definitions, and data limitations and use constraints, click on the "*i*" button to the right of the layer name in the layer list. A full description of the data layers and modeling process can also be found in the project report.

Map legend
A legend for each data layer is available within the layer list on the left hand side of the map. Click on the plus sign next to the layer name. This opens a box that displays the legend.

Opacity
The opacity of any data layer can be adjusted.

1) Select the layer of interest from the left hand layer list by clicking on the radio button next to the layer title. Once selected, the layer should be highlighted in pink.
2) Adjust the opacity using the bar on the lower right hand side of the map.
3) The opacity will remain as adjusted for each layer until it is manually changed again.

Identify
More information about each hexagon or polygon can be obtained by using the identify feature.

1) Select the layer of interest from the left hand layer list by clicking on the radio button next to the layer title. Once selected, the layer should be highlighted in pink.
2) Click on the hexagon or polygon of interest on the map. A data box will pop up showing a table with additional data for that layer within that hexagon or location.

Data Download
For most users, viewing and manipulating the data within the ACE-II viewer is the most appropriate way to use the data for its intended purposes. For advanced users with a thorough understanding of the data limitations, the ACE-II GIS layers are available by request from the BIOS Coordinator. Users must consider the data limitations as well as common GIS pitfalls such as scale, currency, and error-propagation.

OTHER VIEWER FUNCTIONS

Weighted-additive model
The weighted-additive model function allows the user to apply their own weights to the ecoregional input layers and view the resulting maps in the viewer. See the project report for further information about the weighted-additive model process.

To use the weighted-additive model function, choose the Ecoregional view. Click on the "Add+" box on the "Ecoregional Models" bar.

Once the model window is open, the user can set the weights of the input layers as follows:

1) Drag the tab on the bar to the desired weight for each of the four input layers. Choices for weights are zero, half, one, or double. For example, if one model input is set to half and another to double, the input set to double would have four times the weight of the input set to half. Setting an input to zero removes it from the model.
2) Select the desired ecoregion in the ecoregion box. Note that all of the weighted-additive models are ecoregional, so only one ecoregion can be viewed at a time. However, for every model produced, the results for all ecoregions are saved. After the model is added to the layers list, it is possible to view the results for that weighting scheme in any ecoregion by changing the ecoregion selection in the drop-down list.
3) The model name box shows the weights chosen for that particular model. This code will appear in the main layers list when the "See Modeled Result" button is clicked. Multiple models can be saved to the main layers list, and each will be saved with the name specifying the weights used to create that layer. The following abbreviations are used:

Layer Name	Code	Model Weight	Code
Native Species Richness	S	Zero	0x
Rarity-Weighted Richness	W	Half	0.5x
Rare Species Richness	R	One	1x
Sensitive Habitats	H	Double	2x

A note about the weighted-additive model function:
The weighted-additive model generates a surface representing the sum of four final layers (native species richness, rare species richness, rarity-weighted richness, and sensitive habitat), each ranked by ecoregion. The layers are ranked into 5 quantiles from 1 (low) to 5 (high) before summing, giving each layer equal weight in the final model. The ranked layers are then weighted and summed to generate the model output. This method differs slightly from that used to create the ACE-II Biological Index surface. The Biological Index surface was created by summing the raw values of the input layers rather than the ranked values.